10" Compound Power Miter Saw

(Model MS275)

INSTRUCTION MANUAL

PART NO. 906126 - 06-05-02

DELTA® ShopMaster™

To learn more about DELTA MACHINERY
visit our website at: **www.deltamachinery.com.**

ESPAÑOL: PÁGINA 19

For Parts, Service, Warranty or other Assistance,

please call 1-800-223-7278 (In Canada call 1-800-463-3582).

GENERAL SAFETY RULES

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, **DO NOT** use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

Technical Service Manager
Delta Machinery
4825 Highway 45 North
Jackson, TN 38305
(IN CANADA: 505 SOUTHGATE DRIVE, GUELPH, ONTARIO N1H 6M7)

⚠ WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL**. Learn the tool's application and limitations as well as the specific hazards peculiar to it.

2. **KEEP GUARDS IN PLACE** and in working order.

3. **ALWAYS WEAR EYE PROTECTION**. Wear safety glasses. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty. These safety glasses must conform to ANSI Z87.1 requirements. **NOTE:** Approved glasses have Z87 printed or stamped on them.

4. **REMOVE ADJUSTING KEYS AND WRENCHES**. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "on".

5. **KEEP WORK AREA CLEAN**. Cluttered areas and benches invite accidents.

6. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.

7. **KEEP CHILDREN AND VISITORS AWAY**. All children and visitors should be kept a safe distance from work area.

8. **MAKE WORKSHOP CHILDPROOF** – with padlocks, master switches, or by removing starter keys.

9. **DON'T FORCE TOOL**. It will do the job better and be safer at the rate for which it was designed.

10. **USE RIGHT TOOL**. Don't force tool or attachment to do a job for which it was not designed.

11. **WEAR PROPER APPAREL**. No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

12. **SECURE WORK**. Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.

13. **DON'T OVERREACH**. Keep proper footing and balance at all times.

14. **MAINTAIN TOOLS IN TOP CONDITION**. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.

16. **USE RECOMMENDED ACCESSORIES**. The use of accessories and attachments not recommended by Delta may cause hazards or risk of injury to persons.

17. **REDUCE THE RISK OF UNINTENTIONAL STARTING**. Make sure switch is in "OFF" position before plugging in power cord. In the event of a power failure, move switch to the "OFF" position.

18. **NEVER STAND ON TOOL**. Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

19. **CHECK DAMAGED PARTS**. Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

20. **DIRECTION OF FEED**. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

21. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF**. Don't leave tool until it comes to a complete stop.

22. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL. DO NOT USE TOOL WHILE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in serious personal injury.

23. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.

24. **THE DUST GENERATED** by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use wood dust collection systems whenever possible.

25. ⚠ **WARNING: SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES** contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

ADDITIONAL SAFETY RULES FOR MITER SAWS

⚠ WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

1. **DO NOT OPERATE THIS MACHINE UNTIL** it is **assembled** and **installed** according to the instructions.
2. **OBTAIN ADVICE from your supervisor, instructor, or another qualified person** if you are not familiar with the operation of this machine.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections.
4. **USE ONLY CROSS-CUTTING SAW BLADES.** When using carbide-tipped blades, make sure they have a negative hook angle. Do not use blades with deep gullets as they can deflect and contact guard.
5. **DO NOT OPERATE** the miter saw until it is completely assembled and installed according to the instructions.
6. **DO NOT** perform any operation freehand. Secure or clamp workpiece firmly against fence.
7. **KEEP HANDS OUT OF PATH** of saw blade. If the workpiece you are cutting would cause your hand to be within the hazard zone of the saw blade, the workpiece should be clamped in place before making cut.
8. **BE SURE** blade is sharp, runs free, and is free of vibration.
9. **ALLOW** the motor to come up to full speed before starting cut.
10. **KEEP** motor air slots clean and free of chips.
11. **ALWAYS MAKE SURE** all clamp handles are tight before cutting, even if the table is positioned in one of the positive stops.
12. **BE SURE** blade and flanges are clean and that arbor screw is tightened securely.
13. **USE** only blade flanges specified for your saw.
14. **USE PROPER BLADE SIZE** and type.
15. **NEVER** apply lubricants to the blade when it is running.
16. **ALWAYS** check the blade for cracks or damage before operation. Replace cracked or damaged blade immediately.
17. **NEVER** reach around or behind saw blade.
18. **MAKE SURE** blade is not contacting workpiece before switch is turned on.
19. **NEVER** lock the switch in the “ON” position.
20. **AFTER COMPLETING CUT,** release power switch and wait for coasting blade to stop before returning saw to raised position.
21. **TURN OFF** tool and wait for saw blade to stop before moving workpiece or changing settings.
22. **DO NOT** remove jammed or cut-off pieces until blade has stopped.
23. **NEVER** cut ferrous metals or masonry.
24. **NEVER** recut small pieces.
25. **PROPERLY SUPPORT LONG OR WIDE** workpieces.
26. **NEVER** use the miter saw in an area with flammable liquids or gases.
27. **NEVER** use solvents to clean plastic parts. Solvents could possibly dissolve or otherwise damage the material. Only a soft damp cloth should be used to clean plastic parts.
28. **TURN THE MACHINE “OFF” AND DISCONNECT THE MACHINE** from the power source before installing or removing accessories, before adjusting or changing set-ups, or when making repairs.
29. **TURN THE MACHINE “OFF”,** disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE “OFF” POSITION** to prevent unauthorized use.
30. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this tool is available from the Power Tool Institute, 1300 Summer Avenue, Cleveland, OH 44115-2851. Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

SAVE THESE INSTRUCTIONS. Refer to them often and use them to instruct others.

POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the motor to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the motor.

⚠ WARNING: DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

MOTOR SPECIFICATIONS

Your machine is wired for 120 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

GROUNDING INSTRUCTIONS

⚠WARNING: THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

1. All grounded, cord-connected machines:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating less than 150 volts:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. A, the machine will have a grounding plug that looks like the plug illustrated in Fig. A. A temporary adapter, which looks like the adapter illustrated in Fig. B, may be used to connect this plug to a matching 2-conductor receptacle as shown in Fig. B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. Whenever the adapter is used, it must be held in place with a metal screw.

NOTE: In Canada, the use of a temporary adapter is not permitted by the Canadian Electric Code.

⚠ WARNING: IN ALL CASES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE, HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.

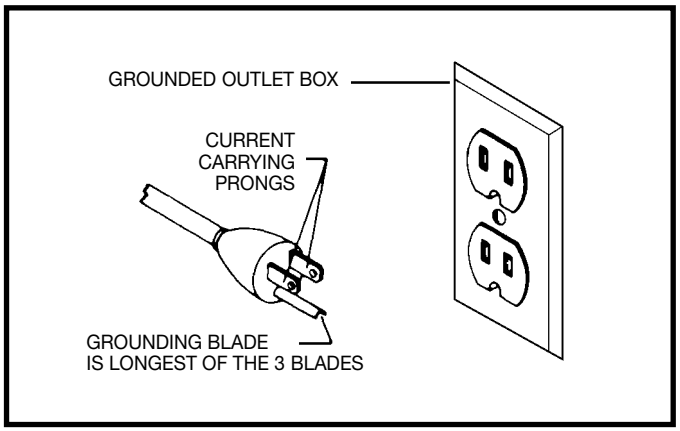

Fig. A

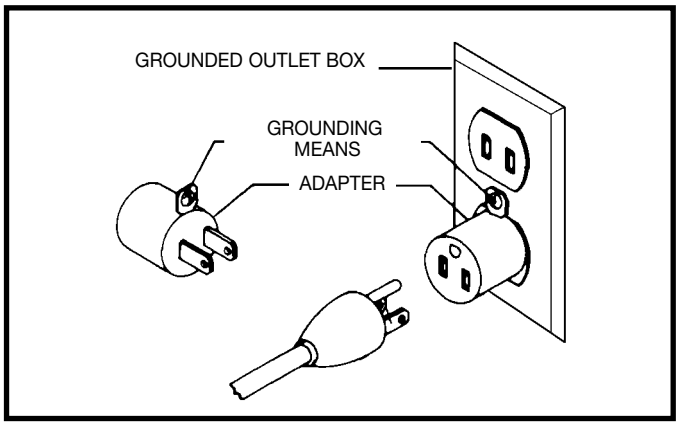

Fig. B

EXTENSION CORDS

Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. C shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

MINIMUM GAUGE EXTENSION CORD

RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES

Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	120	up to 25	18 AWG
0-6	120	25-50	16 AWG
0-6	120	50-100	16 AWG
0-6	120	100-150	14 AWG
6-10	120	up to 25	18 AWG
6-10	120	25-50	16 AWG
6-10	120	50-100	14 AWG
6-10	120	100-150	12 AWG
10-12	120	up to 25	16 AWG
10-12	120	25-50	16 AWG
10-12	120	50-100	14 AWG
10-12	120	100-150	12 AWG
12-16	120	up to 25	14 AWG
12-16	120	25-50	12 AWG
12-16	120	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. C

OPERATING INSTRUCTIONS

FOREWORD

Delta ShopMaster Model MS275 is a 10" Compound Power Miter Saw designed to cut wood, plastic, and aluminum. Compound angle and bevel cutting are easy and accurate. It can crosscut up to 5-5/8" x 2-3/4", miter at 45 degrees both left and right 4" x 2-3/4", bevel at 45 degrees left 1-5/8" x 5-5/8", and compound 45 degrees x 45degrees, 4" x 1-5/8". It has trigger-controlled indexing with positive miter stops at 0, 15.5, 22.5, 30, and 45 degrees both left and right, and bevel stops at 0 and 45 degrees left.

UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

NOTICE: THE MANUAL COVER PHOTO ILLUSTRATES THE CURRENT PRODUCTION MODEL. ALL OTHER ILLUSTRATIONS ARE REPRESENTATIVE ONLY AND MAY NOT DEPICT THE ACTUAL COLOR, LABELING, OR ACCESSORIES, AND MAY BE INTENDED TO ILLUSTRATE TECHNIQUE ONLY.

CARTON CONTENTS

Remove the miter saw and all loose items from the carton. **IMPORTANT: CARRYING THE MACHINE BY THE SWITCH HANDLE WILL CAUSE MISALIGNMENT. ALWAYS LIFT THE MACHINE BY THE BASE OR BY THE CARRYING HANDLE (See Fig. 18)**. Fig. 2 illustrates the machine and all loose items after they have been removed from the carton.

1 - Miter Saw

2 - Dust Bag

3 - Wrench for changing blade

4 - Working Clamp

5.- Table Extension Wings (2)

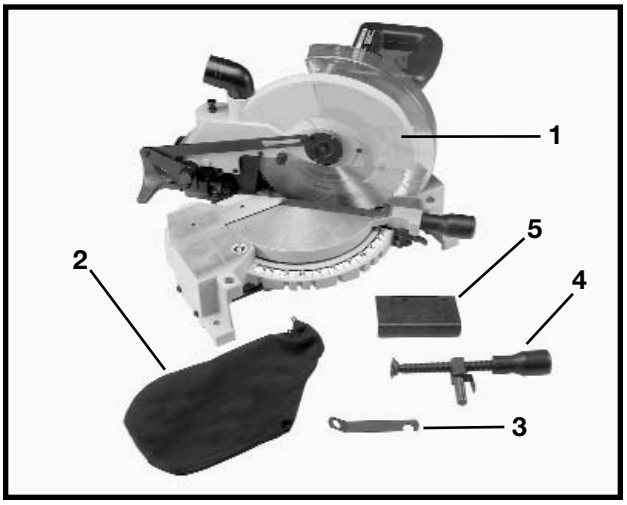

Fig. 2

⚠ WARNING: FOR YOUR OWN SAFETY, DO NOT CONNECT THE MITER SAW TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED AND YOU READ AND UNDERSTAND THE ENTIRE OWNER'S MANUAL.

ASSEMBLY INSTRUCTIONS

ROTATING TABLE TO 90 DEGREE POSITION

Loosen table locking handle (A) Fig. 3 one turn and squeeze locking trigger (B). Rotate table until plunger (C) is engaged into the 90 degree stop (0 on scale). Tighten handle (A) clockwise.

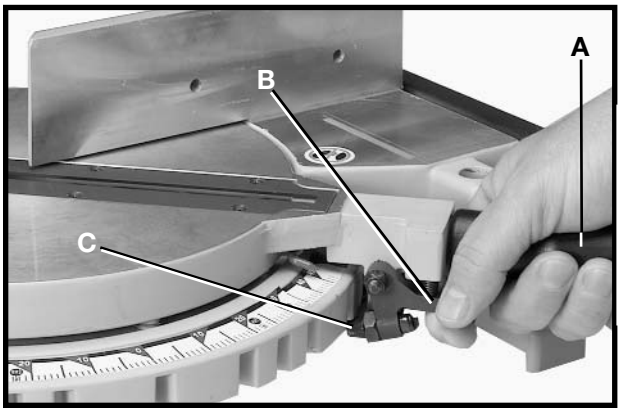

Fig. 3

MOVING CUTTINGHEAD TO THE UP POSITION

1. Push down on handle (A) Fig. 3, to release spring pressure. Then pull out cuttinghead lockpin (B) and move cuttinghead (C) to the raised position.

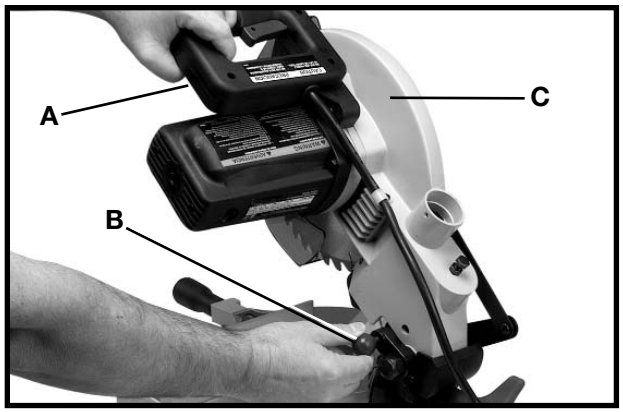

Fig. 4

ATTACHING EXTENSION WINGS

Remove two screws from the ends of the extension rods (B) Fig. 5 that are attached to the machine.. Attach the table extension wing (A) Fig. 5 to the extension rods (B). Tighten screws (C). Attach the other table extension wing to the extension rods in the same manner.

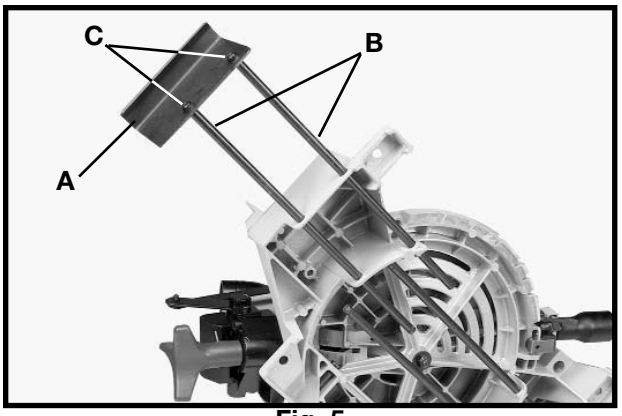

Fig. 5

ATTACHING DUST BAG

1. Attach dust bag (A) Fig. 6 to the dust spout (B) making sure the wire ring (C) is engaged between the ridges in the spout.

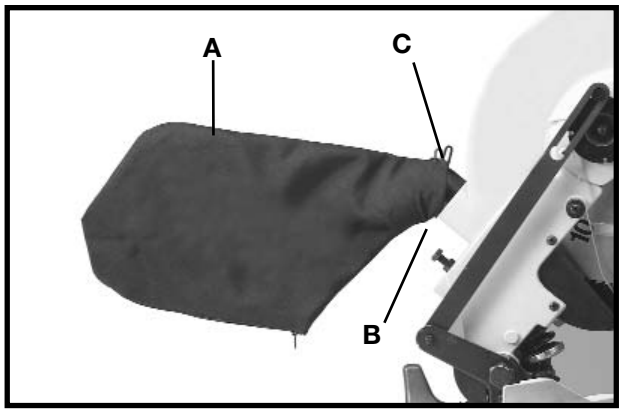

Fig. 6

FASTENING MACHINE TO SUPPORTING SURFACE

Before operating your compound miter saw, make sure it is firmly mounted to a sturdy workbench or other supporting surface. Four holes are provided, two of which are shown at (A) Fig. 7.

When frequently moving the saw from place to place, we suggest that the saw be mounted to a 3/4″ piece of plywood. The tool can then be easily moved from place to place and the plywood clamped to the supporting surface using “C” clamps.

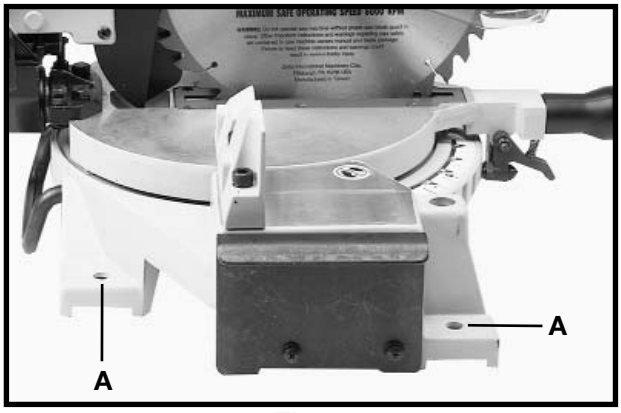

Fig. 7

OPERATING CONTROLS AND ADJUSTMENTS

TABLE HAZARD AREA

⚠ WARNING: THE AREA INSIDE THE TWO RED LINES (A) FIG. 8 ON THE TABLE IS DESIGNATED AS A HAZARD ZONE. NEVER PLACE YOUR HANDS INSIDE THIS AREA WHILE THE TOOL IS BEING OPERATED

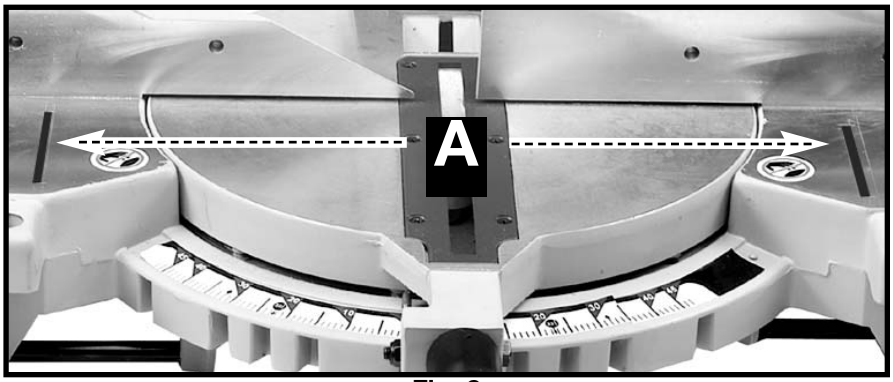

Fig. 8

Use the supplied clamp (A) Fig. 9, especially with short workpieces. Never allow your hands to be in the “Hazard Zone”.Two holes are provided in the base of the miter saw on either side, enabling you to use the clamp (A) Fig. 9 on the right or left hand side of the saw blade.

WARNING: Keep hands out of path of saw blade. If necessary, clamp the workpiece in place before making cut.

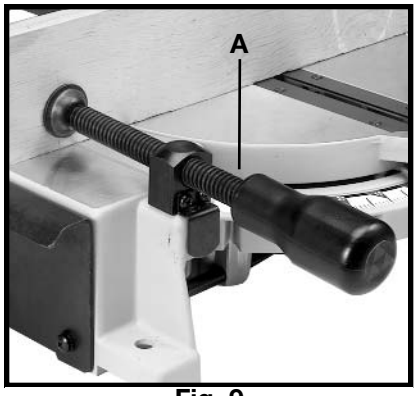

Fig. 9

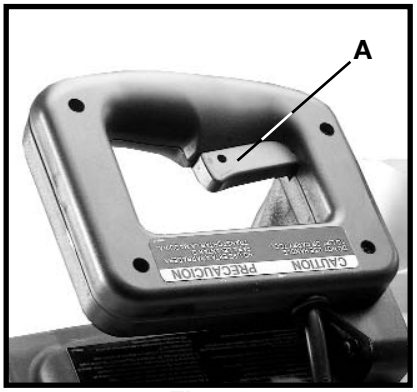

Fig. 10

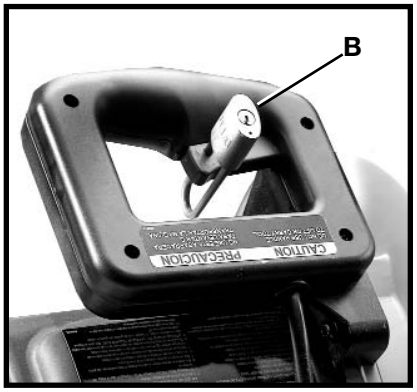

Fig. 11

STARTING AND STOPPING MACHINE

To start the machine, depress switch trigger (A) Fig. 10. To stop the machine, release the switch trigger. This miter saw is equipped with an automatic electric brake. As soon as the switch trigger (A) Fig. 10 is released, the electric brake is activated and stops the blade in seconds.

WARNING: A TURNING SAW BLADE CAN BE HAZARDOUS. AFTER COMPLETING CUT, RELEASE THE SWITCH TRIGGER (A) FIG. 10 TO ACTIVATE BLADE BRAKE. KEEP CUTTINGHEAD DOWN UNTIL BLADE HAS COME TO A COMPLETE STOP.

WARNING: THE TORQUE DEVELOPED DURING BRAKING MAY LOOSEN THE ARBOR SCREW. THE ARBOR SCREW SHOULD BE CHECKED PERIODICALLY AND TIGHTENED IF NECESSARY.

LOCKING SWITCH IN THE “OFF” POSITION

IMPORTANT: When the machine is not in use, the switch should be locked in the “OFF” position to prevent unauthorized use, using a padlock (B) Fig. 11 with a 3/16" diameter shackle.

ROTATING TABLE FOR MITER CUTTING

Your miter saw will cut any angle from a straight 90 degree cut to 47 degrees right and left. Loosen lock handle (A) Fig. 12 one or two turns, depress index lever (B), and move the control arm to the desired angle. **TIGHTEN LOCK HANDLE (A)**.

The miter saw is equipped with positive stops at the 0, 15.5, 22.5, 30, and 45 degree right and left positions. Loosen lock handle (A) Fig. 12, depress index lever (B), and move the control arm until the bottom of the index lever engages into one of the positive stops (C). **TIGHTEN LOCK HANDLE (A)**.

In addition, a triangle indicator (D) Fig. 13 is provided on the miter scale at the 31.6 degrees right and left miter positions for cutting crown moulding. (Refer to the **“CUTTING CROWN MOULDING”** section of this manual).

IMPORTANT: ALWAYS TIGHTEN LOCK HANDLE (A) FIG. 12 BEFORE CUTTING.

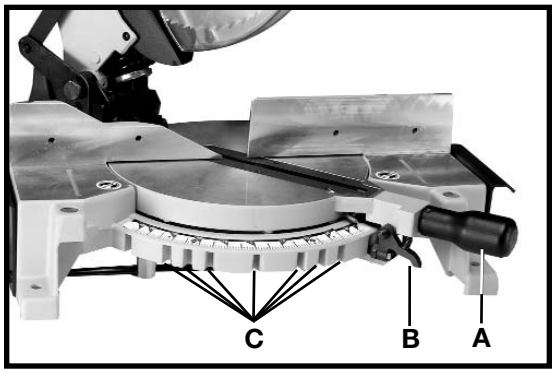

Fig. 12

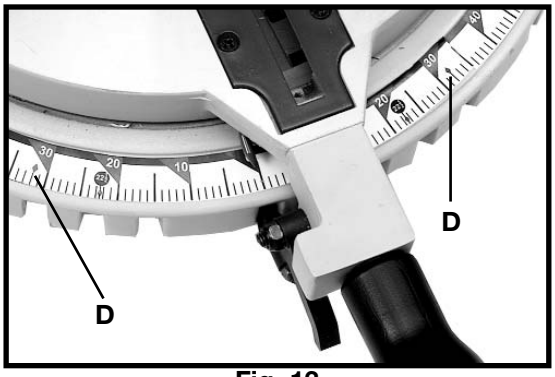

Fig. 13

POINTER AND SCALE

A pointer (A) Fig. 14 is supplied to indicate the actual angle of cut. Each line on the scale (B) represents 1 degree. When the pointer is moved from one line to the next on the scale, the angle of cut is changed by 1 degree.

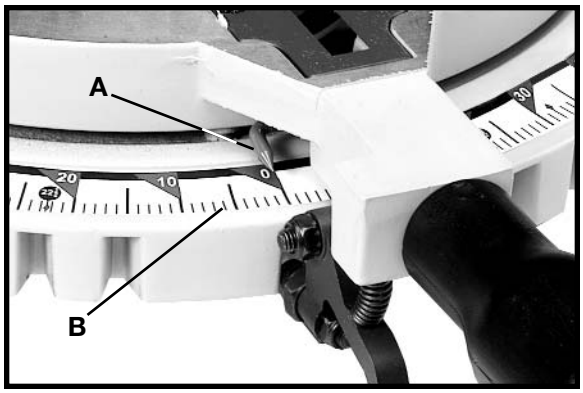

Fig. 14

LOCKING CUTTINGHEAD IN THE DOWN POSITION

When transporting the saw, the cuttinghead should always be locked in the down position. Lower the cutting arm (A) Fig. 15, and push in plunger (B) until other end of plunger (B) engages with hole in cutting arm. **IMPORTANT: CARRYING THE MACHINE BY THE SWITCH HANDLE WILL CAUSE MIS-ALIGNMENT. ALWAYS LIFT THE MACHINE BY THE BASE OR BY THE CARRYING HANDLE (See Fig. 18)**.

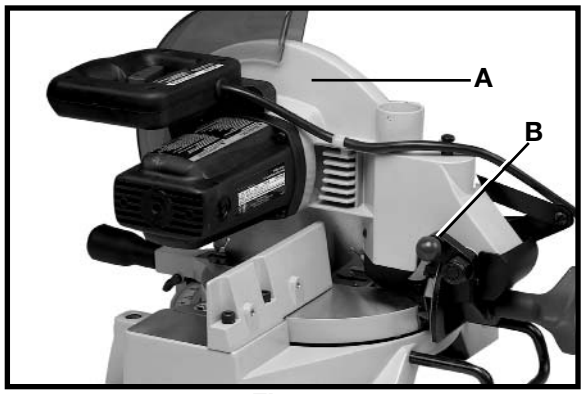

Fig. 15

TILTING CUTTINGHEAD FOR BEVEL CUTTING

The cuttinghead of your compound miter saw can be tilted to cut any bevel angle from a 90 degree straight cut off to a 45 degree left bevel angle. Loosen bevel lock handle (A) Fig. 16, tilt cutting arm (B) to the desired angle, and tighten lock handle (A).

Positive stops are provided to rapidly position the saw blade at 90 and 45 degrees to the table. Refer to section entitled **"ADJUSTING 90 AND 45 DEGREE BEVEL STOPS".** The bevel angle of the cutting arm is determined by the position of the pointer (C) Fig. 16 on the scale (D).

In addition, a triangle indicator is provided on the bevel scale at the 33.9 degree bevel angle for cutting crown moulding. Refer to the **"CUTTING CROWN MOULDING"** section of this manual.

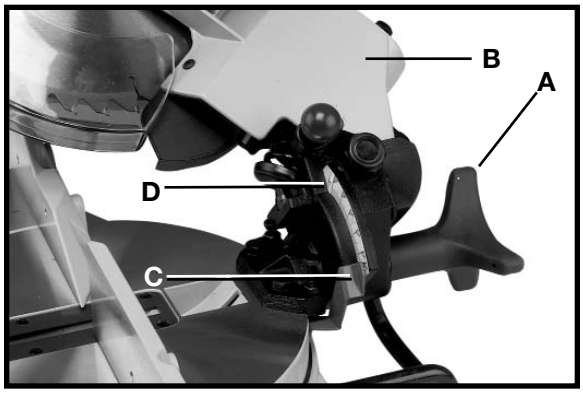

Fig. 16

REAR SUPPORT/CARRYING HANDLE

A rear support bar (A) Fig. 17 is provided to prevent the machine from tipping to the rear when the machine is being used. For maximum support the bar (A) should be pulled out as far as possible.

The support bar (A) Fig. 18 can also be used to carry the machine.

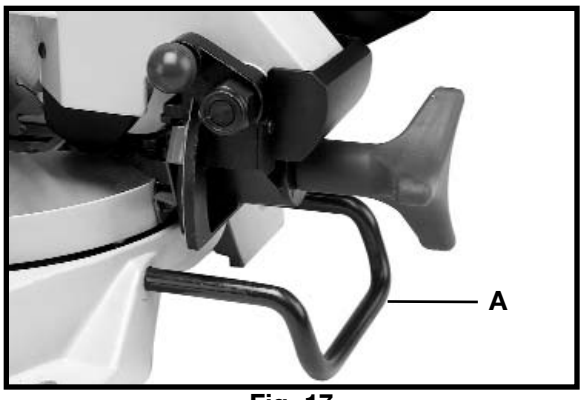

Fig. 17

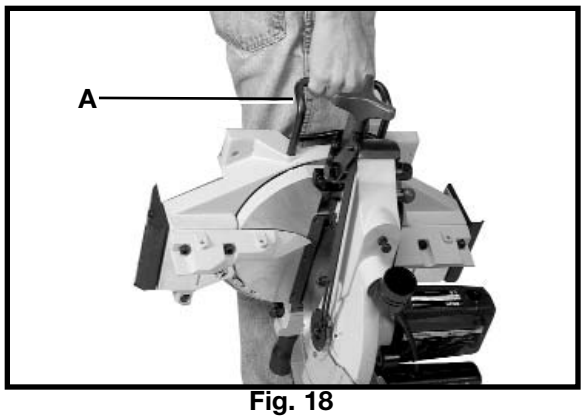

Fig. 18

WORK SUPPORT EXTENSIONS

Work support extensions (A) Fig. 19 are located on each side of the machine to help support long or wide workpieces. To use the work support extensions, pull them outward (Fig. 19).

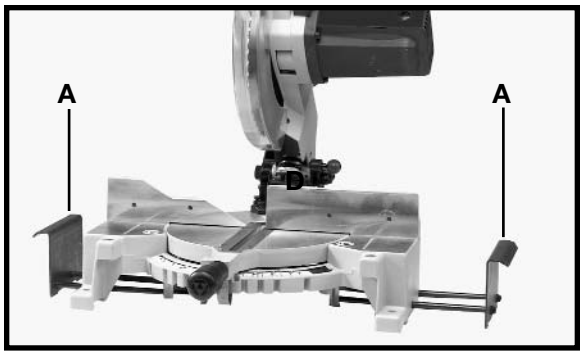

Fig. 19

ADJUSTMENTS

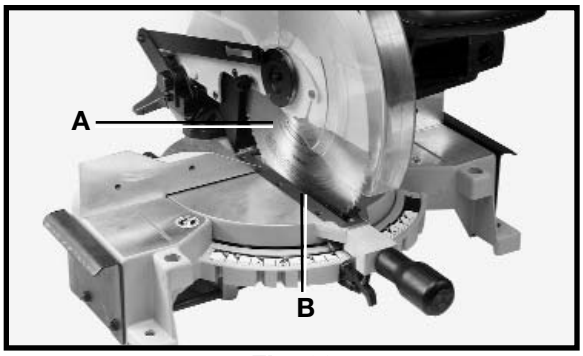

Fig. 20

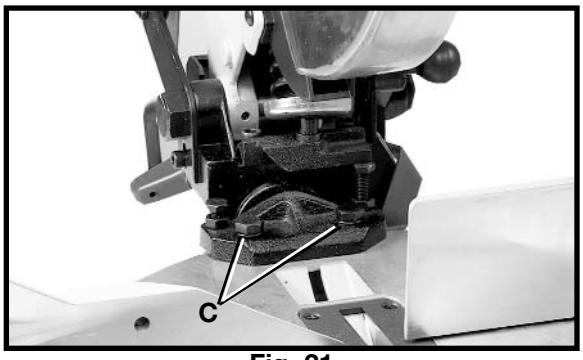

Fig. 21

ADJUSTING BLADE PARALLEL TO TABLE SLOT

1. **DISCONNECT MACHINE FROM POWER SOURCE.**

2. Lower the cutting arm. The saw blade (A) Fig. 20 should be parallel to the left edge (B) of the table opening.

3. If an adjustment is necessary, raise the cuttinghead, loosen screws (C) Fig. 21, and move the cutting arm until the blade is parallel with the left edge (B) Fig. 20 of the table opening. Then tighten the two screws (C) Fig. 21.

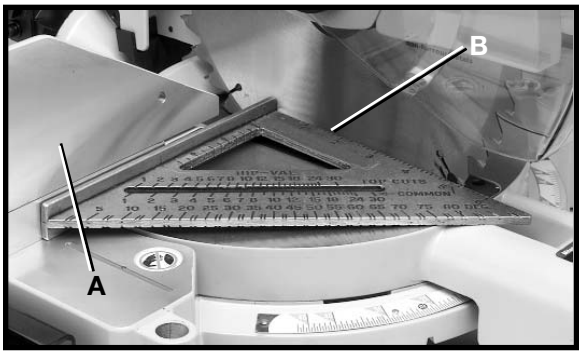

Fig. 22

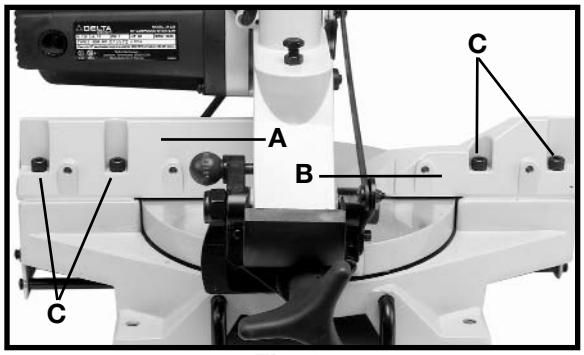

Fig. 23

ADJUSTING FENCE 90 DEGREES TO BLADE

If either of the fences (A or B) Fig. 23 is removed from the saw, re-adjust it after replacement so that it is 90 degrees to the blade as follows:

1. **DISCONNECT MACHINE FROM POWER SOURCE**.

2. Place one end of the square (B) Fig. 23 against the fence (A) and the other end against the blade.

3. To adjust, loosen the two screws (C) Fig. 23 and adjust fence 90 degrees to the blade. Tighten the two screws (C).

ADJUSTING DOWNWARD TRAVEL OF SAW BLADE

1. **DISCONNECT MACHINE FROM POWER SOURCE**.

2. The downward travel of the saw blade should be limited to prevent the saw blade from contacting any metal surfaces of the machine. This adjustment is made by loosening locknut (A) Fig. 24, and turning adjusting screw (B) in or out.

3. Lower the blade as far as possible. Rotate the blade by hand to make certain the teeth do not contact any metal surfaces and adjust if necessary.

4. After the downward travel of the saw blade has been adjusted, tighten locknut (A)

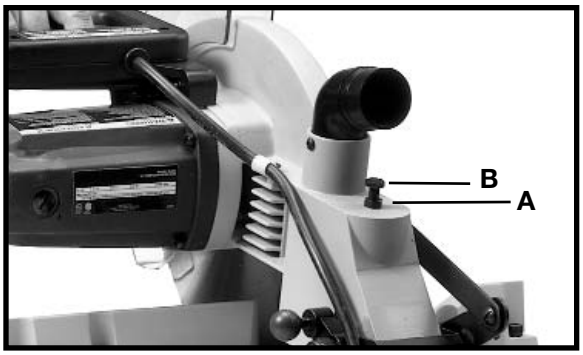

Fig. 24

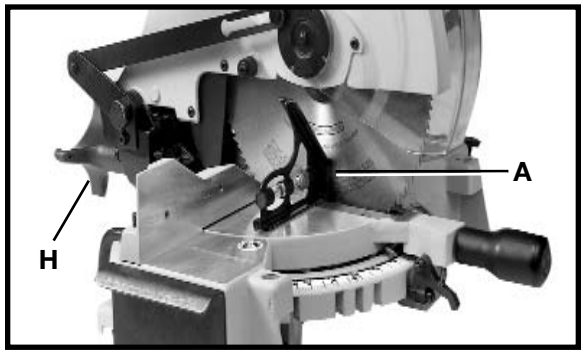

Fig. 25

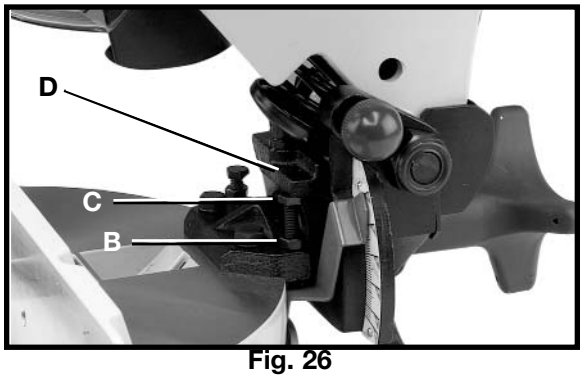

Fig. 26

ADJUSTING 90 AND 45 DEGREE BEVEL STOPS

1. **DISCONNECT MACHINE FROM POWER SOURCE.**

2. Loosen bevel lock handle (H) Fig. 25 and move the cutting arm all the way to the right. Tighten the bevel lock handle.

3. Place one end of a square (A) Fig. 25 on the table and the other end against the blade. Check to see if the blade is 90 degrees to the table (Fig. 25).

4. If an adjustment is necessary, loosen locknut (B) Fig. 26, and turn screw (C) until head of screw (C) contacts casting (D) when blade is 90 degrees to the table. Then tighten locknut (B).

5. Loosen bevel lock handle (H) Fig.26, and move the cutting arm all the way to the left bevel position and tighten bevel lock handle.

6. Use a combination square (A) Fig. 28, to see if the blade is at 45 degrees to the table.

7. If an adjustment is necessary, loosen locknut (E) Fig. 28, and turn screw (F) until screw (F) contacts casting (G) when blade is 45 degrees to the table. Then tighten locknut (E).

Fig. 27

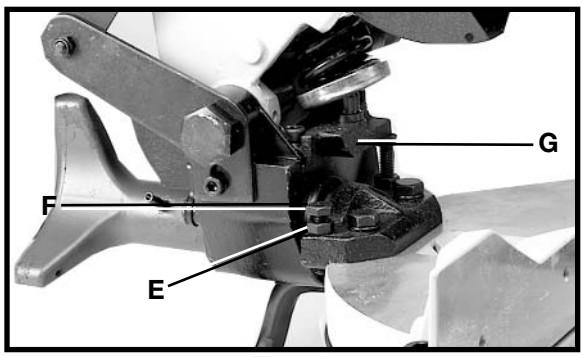

Fig. 28

ADJUSTING TABLE POSITIVE STOPS

1. DISCONNECT MACHINE FROM POWER SOURCE.

2. Use a straight edge against both fences (G) Fig. 29 to determine if the two fence halves are parallel. If an adjustment is necessary, loosen fence mounting screws, two of which are shown at (H) and make the required adjustments. Tighten fence mounting screws. **NOTE:** Check to see that the blade is 90 degrees to the fence.

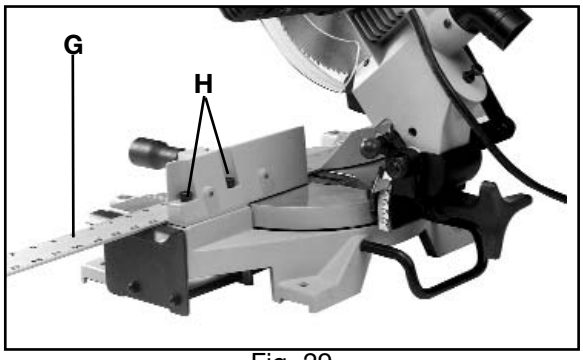

Fig. 29

3. Move the table to the 90 degree straight cut-off position. Make sure that the plunger (B) Fig. 32 is engaged in the 0 degree positive stop and tighten the lock handle (A) Fig. 32.

4. Clamp workpiece and make a cut on a piece of wood (Fig. 30).


Fig. 30

5. Use a square to see if the piece of wood was cut at 90 degrees (Fig. 31).

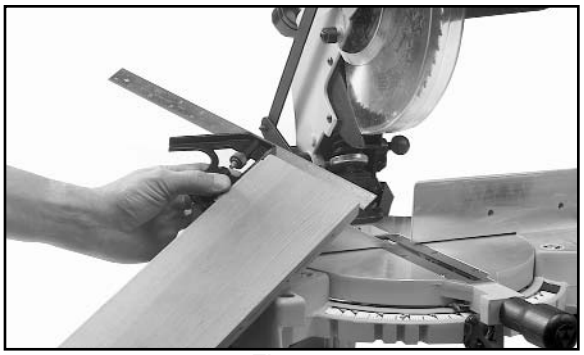
Fig. 31

6. If an adjustment is necessary, loosen the lock handle (A) Fig. 32 one turn. Loosen locknut (B) and turn eccentric nut (C) right or left as necessary. Tighten lock nut (B).

7. Make a test cut after each adjustment.

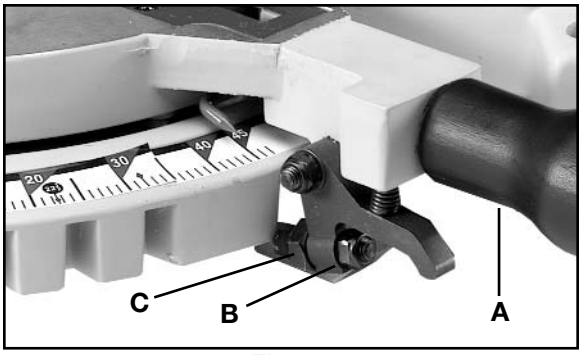

Fig. 32

8. When the cut is a 90 degree cut, loosen set screw (E) Fig. 33 and adjust pointer (D), to point to the “0” mark on the scale.

9. Adjustment of the 90 degree positive stop insures that all of the other positive stops will be adjusted.

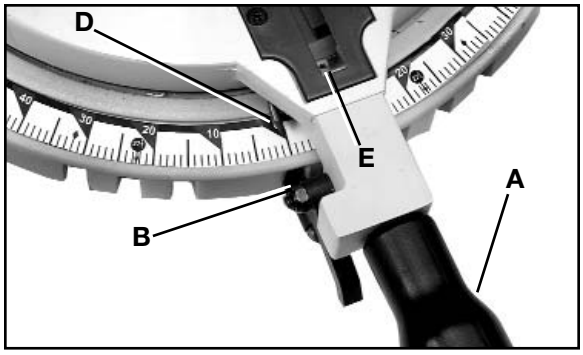

Fig. 33

TYPICAL OPERATIONS AND HELPFUL HINTS

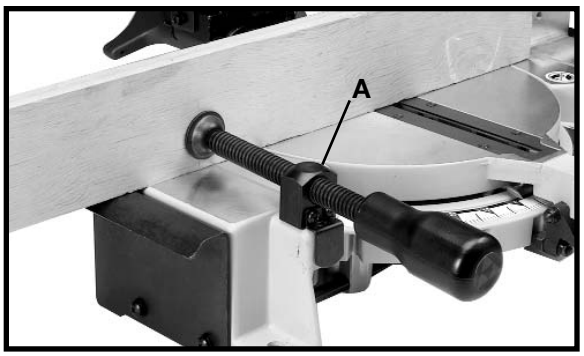

Fig. 34

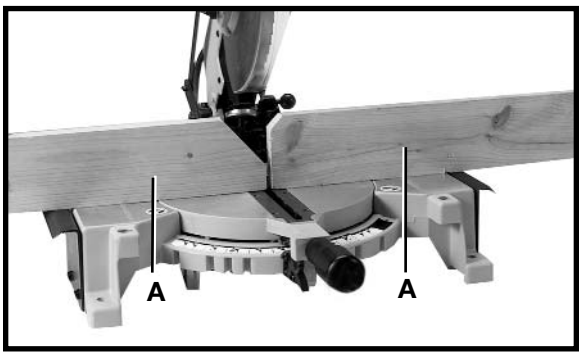

Fig. 35

1. Before cutting, make certain the cutting arm and table are at their correct settings and firmly locked in place.
2. Place the workpiece on the table and hold or clamp it firmly against the fence. Fig. 34 illustrates the work clamp (A). The clamp (A) can also be used on the right side of the machine.
3. ⚠ **WARNING:** If the workpiece causes your hand to be within the hazard zone of of the saw blade, clamp the workpiece in place before making cut.
4. For best results, cut at a slow, even rate.
5. Never attempt freehand cutting (wood that is not held firmly against the fence and table).

AUXILIARY WOOD FENCE

⚠ **WARNING:** When performing multiple or repetitive cut-off operations that result in small cut-off pieces, one inch or less, it is possible for the saw blade to catch the cut-off pieces and project them out of the machine or into the blade guard and housing, possibly causing damage or injury. To limit the possibility of personal injury or blade guard damage, an auxiliary wood fence can be mounted to your saw.

Holes are provided in the fence to attach an auxiliary fence (A) Fig. 35. This auxiliary fence is constructed of straight wood approximately 1/2" thick by 3" high by 20" long. **NOTE:** The auxiliary fence (A) is used **ONLY** with the saw blade in the 0 degree bevel position (90 degrees to the table). When bevel cutting (blade tilted), the auxiliary fence must be removed.

GENERAL CUTTING OPERATIONS

1. Your machine has the capacity to cut standard 2 x 4's lying flat or on edge, at the 45 degree right and left miter angles (Fig. 36A).
2. A standard 2 x 6 can be cut in the 90 degree straight cut-off position in one pass (Fig. 36C) or at 45 degree right or left miter angles (Fig. 36C).
3. Cutting a standard 4 x 4 can be accomplished with one pass (Fig. 36D).
4. This machine has the capacity to accurately cut crown moldings and other bevel-type cuts (Fig. 36E).
5. Cutting various sizes of plastic pipe is an easy job with this machine (Fig. 36F).

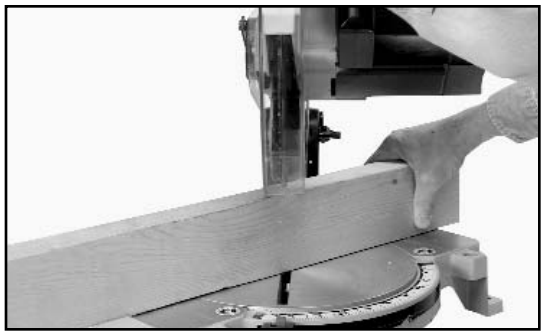

Fig. 36A

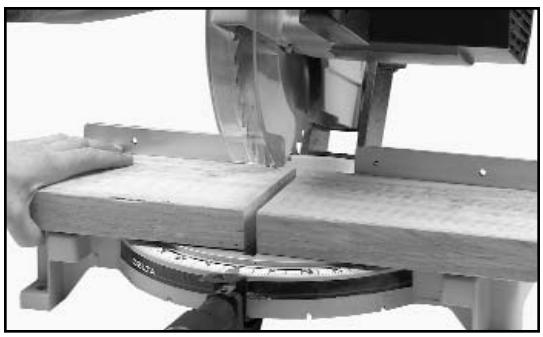

Fig.36B

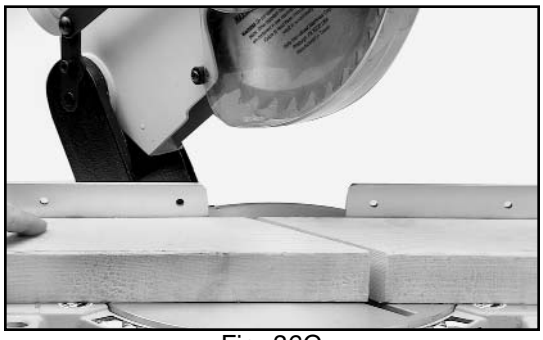

Fig. 36C

Fig. 36D

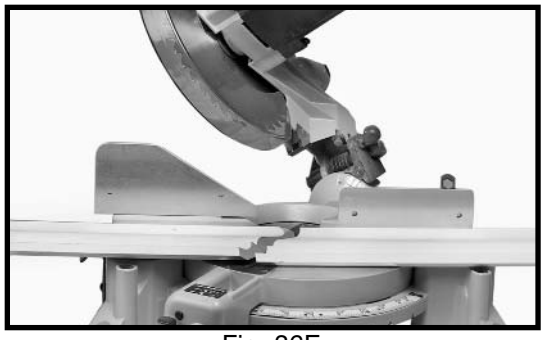

Fig. 36E

Fig. 36F

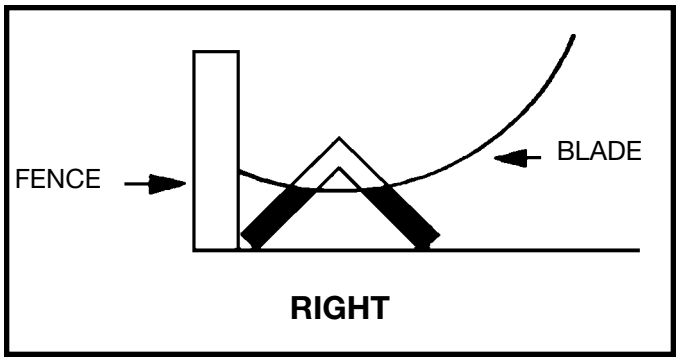

Fig. 37

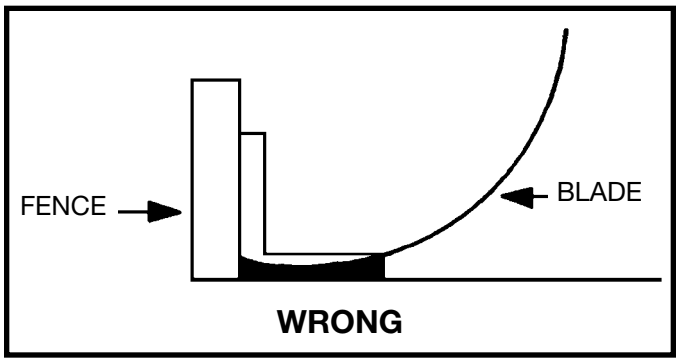

Fig. 38

CUTTING ALUMINUM

Aluminum extrusions such as used for making aluminum screens and storm windows can easily be cut with your compound miter saw. When cutting aluminum extrusions, or other sections that can be cut with a saw blade and are within the capacity of the machine, position the material so the blade is cutting through the smallest cross-section (Fig. 37). The wrong way to cut aluminum angles is illustrated in Fig. 38. Be sure to apply a stick wax to the blade before cutting aluminum stock. This stick wax is available at most industrial mill supply houses. The wax provides proper lubrication and keeps chips from adhering to the blade.

⚠ **WARNING: NEVER APPLY LUBRICANT TO THE BLADE WHILE THE MACHINE IS RUNNING**.

CUTTING BOWED MATERIAL

When cutting flat pieces, first check to see if the material is bowed. If it is, make sure the material is positioned on the table as shown in Fig. 39.

If the material is positioned the wrong way, as shown in Fig. 40, the workpiece will pinch the blade near the completion of the cut.

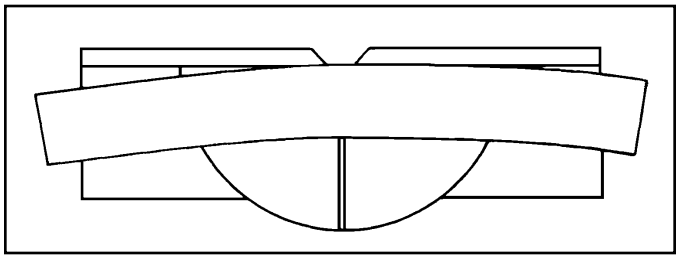

Fig. 39

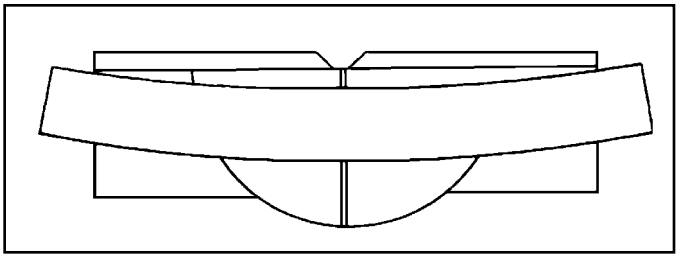

Fig. 40

CUTTING CROWN MOULDING

One of the many features of your saw is the ease of cutting crown moulding.The following is an example of cutting both inside and outside corners on 52/38 degree wall angle crown moulding. **NOTE:** When cutting 45 degree wall angle crown moulding, the following procedure for inside and outside corners is the same with the exception that the bevel position will always be at 30 degrees and the miter position will be 35.25 degrees to the right or left.

1. Move the table to the 31.6 degree right miter position and lock the table in position. **NOTE:** A triangle indicator is provided on the miter scale to find this angle quickly.
2. Tilt the saw blade to the 33.9 degree left bevel position and tighten bevel lock handle. **NOTE:** A triangle indicator is provided on the bevel scale to find this angle quickly.
3. Place the crown moulding on the table with the **CEILING EDGE** of the moulding against the fence (see insert - Fig. 41), and make the cut. **NOTE:** The piece of crown moulding used for the outside corner will always be on the right hand side of the blade (A) Fig. 41. The piece of crown moulding used for the inside corner will always be on the left hand side of the blade (B) Fig. 41.
4. To make the matching halves of the inside and outside corners, rotate the table to the 31.6 degree left miter position and tighten table lock handle. **NOTE:** A triangle indicator is provided on the miter scale to find this angle quickly (Fig. 42).
5. Place the crown moulding on the table with the **WALL EDGE** of the crown moulding (see insert - Fig. 42) against the fence and make the cut. Again, the piece of crown moulding used for the outside corner will always be on the right side of the blade (C) Fig. 42. The piece of crown moulding used for the inside corner will always be on the left side of the blade (D) Fig. 42.
6. Fig. 43 illustrates the two outside corner pieces - (A) being the piece cut at (A) Fig. 41, and (C) being the piece cut at (C) Fig. 42.
7. Fig. 44 illustrates the two inside corner pieces - (B) being the piece cut at (B) Fig. 41, and (D) being the piece cut at (D) Fig. 42.

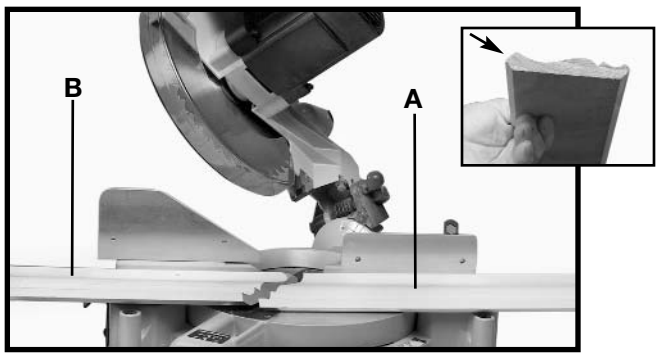

Fig. 41

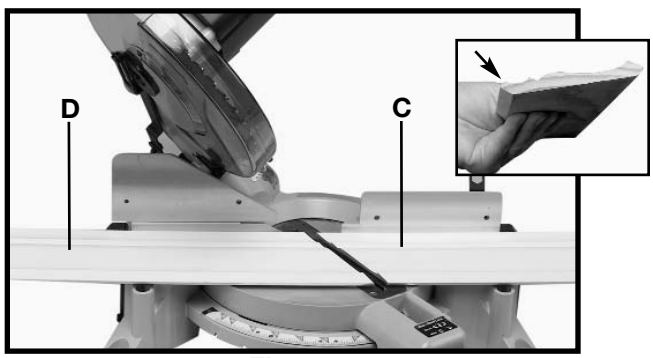

Fig. 42

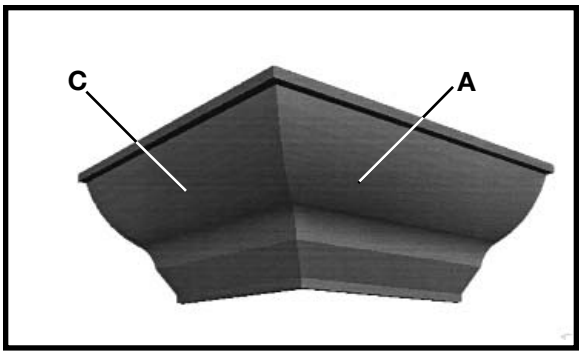

Fig. 43

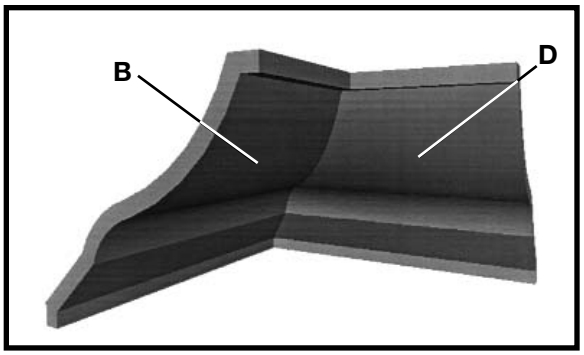

Fig. 44

MAINTENANCE

CHANGING THE BLADE

⚠ **WARNING: USE ONLY CROSS-CUTTING SAW BLADES. WHEN USING CARBIDE TIPPED BLADES, DO NOT USE BLADES WITH DEEP GULLETS AS THEY CAN DEFLECT AND CONTACT THE GUARD. USE ONLY 10″ DIAMETER SAW BLADES WHICH ARE RATED FOR 5000 RPM OR HIGHER AND HAVE 5/8″ DIAMETER ARBOR HOLES.**

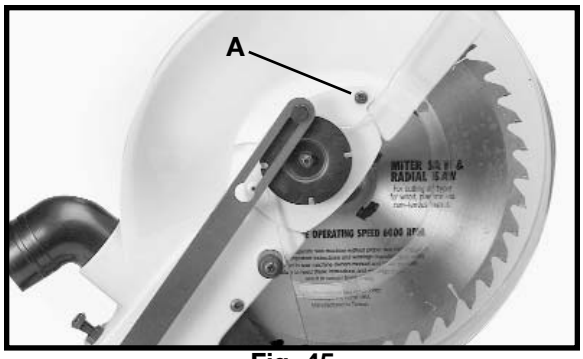

Fig. 45

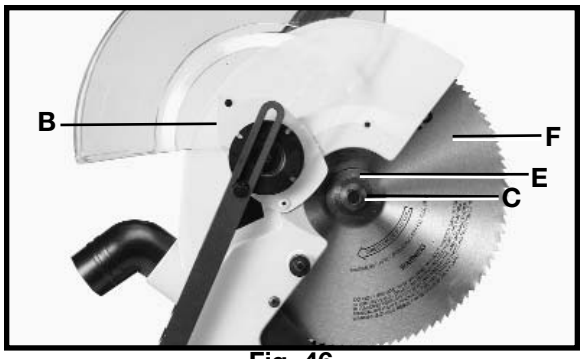

Fig. 46

1. **DISCONNECT MACHINE FROM POWER SOURCE**.

2. Remove screw (A) Fig. 45 and rotate cover (B) to the rear (Fig. 46).

3. To remove the saw blade, PRESS IN ON ARBOR LOCK (D) Fig. 47, and use the supplied wrench to turn the arbor screw (C) Fig. 46 clockwise. Remove the arbor screw.

4. Remove outside blade flange (E) Fig. 46, and saw blade (F) from saw arbor. DO NOT REMOVE INSIDE BLADE FLANGE.

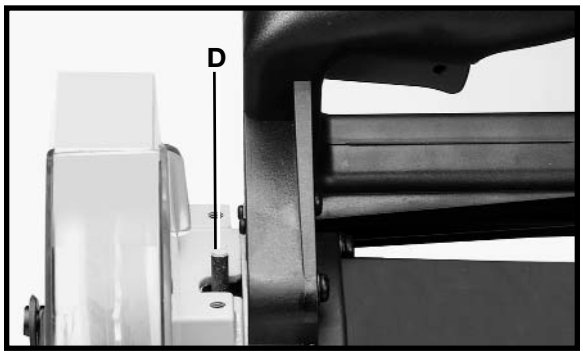

Fig. 47

5. Attach new saw blade **MAKING CERTAIN TEETH OF SAW BLADE ARE POINTING DOWN AT THE FRONT.** Re-attach outside blade flange (E) Fig. 46, and arbor screw (C) by turning it counterclockwise. At the same time, PRESS IN ON THE ARBOR LOCK TO KEEP BLADE FROM TURNING. (D) Fig. 47.

6. Replace screw and cover that was rotated to the rear in STEP 2.

⚠ **WARNING: REMOVE WRENCH BEFORE STARTING MACHINE.**

BRUSH INSPECTION AND REPLACEMENT

CAUTION: BEFORE INSPECTING BRUSHES, DISCONNECT THE MACHINE FROM THE POWER SOURCE.

Brush life varies. It depends on the load on the motor. Check the brushes after the first 50 hours of use for a new machine or after a new set of brushes has been installed.

After the first check, examine them after about 10 hours of use until such time that replacement is necessary.

The brush holders (A) Fig. 48 are located on the motor housing opposite each other. Fig. 49 illustrates one of the brushes removed for inspection. When the carbon on either brush is worn to 3/16" in length or if either spring or shunt wire is burned or damaged in any way, replace both brushes. If the brushes are found serviceable after removing, reinstall them in the same position as removed.

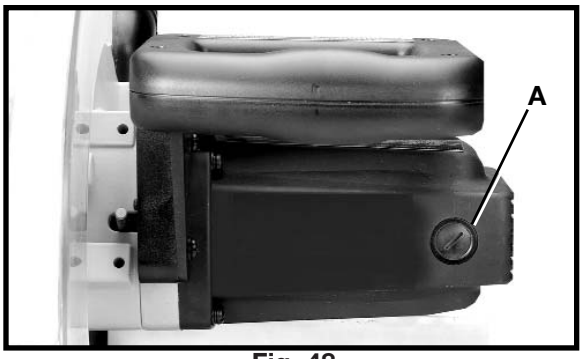

Fig. 48

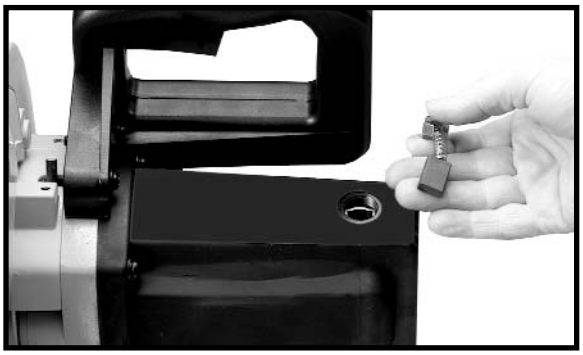

Fig. 49

ACCESSORIES

A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site **www.deltamachinery.com** for a catalog or for the name of your nearest supplier.

WARNING: Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.

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Delta will repair or replace, at its expense and at its option, any Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.

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Authorized Service Stations are located in many large cities. Telephone **800-438-2486** or **731-541-6042** for assistance locating one. Parts and accessories for Porter-Cable ·Delta products should be obtained by contacting any Porter-Cable·Delta Distributor, Authorized Service Center, or Porter-Cable·Delta Factory Service Center. If you do not have access to any of these, call **800-223-7278** and you will be directed to the nearest Porter-Cable·Delta Factory Service Center. Las Estaciones de Servicio Autorizadas están ubicadas en muchas grandes ciudades. Llame al **800-438-2486** ó al **731-541-6042** para obtener asistencia a fin de localizar una. Las piezas y los accesorios para los productos Porter-Cable·Delta deben obtenerse poniéndose en contacto con cualquier distribuidor Porter-Cable·Delta, Centro de Servicio Autorizado o Centro de Servicio de Fábrica Porter-Cable·Delta. Si no tiene acceso a ninguna de estas opciones, llame al **800-223-7278** y le dirigirán al Centro de Servicio de Fábrica Porter-Cable·Delta más cercano.

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